

# Introduction to Transaction Analysis: The Basic Accounting Equation

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Accounting is built upon the fundamental accounting equation:



$$\text{Assets} = \text{Liabilities} + \text{Owner's Equity}$$

This equation must remain in balance and for that reason our modern accounting system is called a dual-entry system. This means that every transaction that is recorded in accounting records must have at least two entries; if it only has one entry the equation would necessarily be unbalanced.

The equation's three parts are explained as follows:

1. **Assets** = what the business has or owns (equipment, supplies, cash, accounts receivable)
2. **Liabilities** = what the business owes outsiders (bank loan, accounts payable)
3. **Owner's Equity** = what the owner owns (investment and business profit)

## The Accounting Equation

From the equation we can see that what the business owns (assets) equals what it owes both creditors (liabilities) and the owners (equity).

1. The business owes creditors for loans made and other obligations to pay for goods or services.

2. The business owes the owner for any money or other assets that the owner invests in the business
3. The business also owes the owner the profit that is realized from business operations.

The accounting equation can be expressed in 3 ways:

Assets = Liabilities + Owners' Equity

Liabilities = Assets – Owners' Equity

Owners' Equity = Assets – Liabilities

If you know any two of the amounts you can calculate the third.

**Business Transactions** occur on a daily basis as a result of doing business. Items are purchased or sold, credit is extended or borrowed, income is made or expenses are assumed. These business transactions result in changes to the three elements of the basic accounting equation.

1. A transaction that increases total assets must also increase total liabilities or owner's equity.
2. A transaction that decreases total assets must also decrease total liabilities or owner's equity.
3. Some transactions may increase one account and decrease another on the same side of the equation i.e. one asset increases and another decreases.

Assets =	Liabilities +	Owner's Equity
+	+	
+		+
–	–	
–		–
+ and –		

***Regardless of the nature of the specific transaction, the accounting equation must stay in balance at all times.***

**Transaction Analysis** is the process of reconciling the differences made to each side of the equation with each financial transaction occurs. Let's look at some sample transactions to get a better understanding of how the analysis and equation work.

The accounting equation for a brand new company will look like this:

**Assets = Liabilities + Owner's Equity**

\$0            \$0            \$0

Transaction 1: The owner deposits \$5000 in the checking account to begin operations

**Assets = Liabilities + Owner's Equity**

+\$5000    \$0            + \$5000

The asset "Cash" is increased by \$5000 and the Owner's Equity is increased \$5000. The business owes the owner \$5000.

Transaction 2: The business purchases a computer, on credit, for \$2500.

**Assets = Liabilities + Owner's Equity**

+\$2500    +\$2500       \$

The asset "Computers" is increased by \$2500 and the liability is also increased \$2500 because the business now owns the store \$2500.

Transaction 3: The business purchases office supplies using \$550 cash.

**Assets = Liabilities + Owner's Equity**

+\$550

-\$550

The asset "Office Supplies" is increased \$550 and the asset "Cash" is decreased \$550.

Transaction 4: A business purchases a building for \$100,000 with a \$25,000 cash down-payment and a loan for the \$75,000 outstanding.

**Assets = Liabilities + Owner's Equity**

+\$100,000 +75,000

-\$25,000

More than two accounts are affected by this transaction. The asset "Building" increases by \$100,000, the asset "Cash" decreases by \$25,000, and the liability "Bank Loan" increases by \$75,000. The net result is that both sides of the equation increase by \$75K.

As you can see, regardless of the transaction, the accounting equation must stay balanced

The **Expanded Accounting Equation** breaks out the Owner's Equity section into two components: **Revenues and Expenses**.

Revenues = what the business earns for providing goods or services

Expenses = the cost of assets the business uses to generate revenues (payroll, depreciation, rent, utilities, taxes)

The business' **Profit** or **Loss** equals the **Revenues – Expenses**. If Revenues are more than Expenses, there is Profit. If Expenses are more than Revenues, there is **Loss**. The owner of the

company also has the option to withdraw equity from the company in the form of drawings (proprietorships and partnerships) or dividends (corporations).

When you look at these relationships to Owner's Equity in terms of the accounting equation you see that

1. Revenues **increase** Owner's Equity
2. Expenses **decrease** Owner's Equity
3. Drawings or Dividends **decrease** Owner's Equity:

The expanded Accounting Equation looks like this:

$$\text{Assets} = \text{Liabilities} + \text{Owner's Equity} + \text{Revenues} - \text{Expenses} - \text{Drawings}$$

Let's analyze some transactions involving these types of accounts:

Transaction 5: The business sells goods for \$1,200 cash.

$$\text{Assets} = \text{Liabilities} + \text{Owner's Equity}$$

+\$1200	+\$1200 (Revenue)
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The asset "Cash" is increased \$1200 and the revenue increases Owner's Equity \$1200.

Transaction 6: The business pays its rent monthly rent of \$950 using a company check.

$$\text{Assets} = \text{Liabilities} + \text{Owner's Equity}$$

-\$950	-\$950 (Expense)
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The asset "Cash" is decreased \$950 and the expense decreases Owner's Equity \$950.

Transaction 7: The business' owner withdraws \$2,000 for his personal use.

**Assets = Liabilities + Owner's Equity**

-\$2000                      -\$2000 (Revenue)

The asset "Cash" is decreased \$2000 and the drawing decreases Owner's Equity \$2000.

The **accounting cycle** is the sequence of procedures used to keep track of what has happened in the business and to report the financial effect of those things. The financial reports will only make sense if the accounts have been analyzed correctly and the accounting equation remains balanced. This is the fundamental building block of accounting and you must learn and apply transaction analysis before continuing further.